APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,050	01/24/2007	Jean-Luc Collet	FR920030070US1	1186

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EXAMINER
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ART UNIT	PAPER NUMBER
2442	

NOTIFICATION DATE	DELIVERY MODE
11/20/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hoffmanwarnick.com

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 September 2009*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6-8 and 10-15* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6-8 and 10-15* is/are rejected.

7)☒ Claim(s) *12-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 9/1/2009 have been fully considered. Applicant argues on page 12 that the cited prior art, including Megiddo, "do not discuss "divid[ing] . . . the original email at the character level" as the limitation to the plurality of chunks. However, Megiddo discusses this exact methodology in col. 4 lines 35 - 41. Applicant's argument thus is not persuasive.

2.   However, after further consideration and in view of the claim amendments, a new grounds of rejection has been made; said new grounds of rejection is discussed in detail below.

Claim Objections

3.   Claims 12 - 15 objected to because of the following informalities:

Said claims reference an algorithm including the step "module x". Based on Applicant's specification (see page 6, line 14) and the common utilization of the "modulo" operation in the prior art and mathematics in general, it is assumed for the sake of performing a complete examination that "module x" is a typographical error and that "modulo x" was intended.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   Claims 1, 4, 8 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable

over Megiddo (US 6,745,231 B1) in view of Togawa (US 2002/0004821 A1).

5.   Regarding claim 1, Megiddo shows a system for enhancing security of e-mails

transmitted from a sender to a receiver over a data transmission network, comprising

(Abstract, Fig. 3):

        a Message Transfer Agent (MTA) associated with said sender for transmitting

(Figs. 1, 2) over said network an original e-mail sent by said sender according to a

predetermined list of a plurality of relay MTAs (Figs. 2, 3, 5, col. 2 line 66 – col. 3 line 2);

        said MTA associated with said sender including a message splitting means

adapted to divide said original e-mail into a plurality of chunks according to a

predetermined algorithm (Figs. 4, 7, col. 4 lines 41 – 63) wherein each of said plurality

of chunks is forwarded to a different one of the plurality of relay MTAs on the

predetermined list such that each of said plurality of chunks is transmitted over a

different pathway of the data transmission network (col. 5 lines 15 – 43), and wherein

message splitting means divides the plurality of chunks of the original e-mail at the

character level (Figs. 4, 5, 7, 8 and col. 4 lines 35 - 41); and

        a chunk assembly agent for receiving from said relay MTAs the plurality of

chunks and for re-assembling the plurality of chunks using said predetermined algorithm

in order to re-build said e-mail (col. 3 lines 2 - 6, col. 4 lines 25 - 27), wherein each of

said plurality of chunks is transmitted through a different relay MTA of the plurality of

relay MTAs as a chunk e-mail having a same destination e-mail address (col. 5 lines 25

- 42).

Megiddo does not show where the chunk assembly is done before sending the message to the receiver and where the destination email address comprises an email address of the chunk assembly agent.

Togawa shows where the chunk assembly is done before sending the message to the receiver and where the destination email address comprises an email address of the chunk assembly agent ([113, 122, 206-109, 214, 217]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo with that Togawa in order to ensure the recipient can reassemble and utilize the message (Togawa, [35,41]).

6.   Regarding claim 4, Megiddo shows

Megiddo does not show where the chunk assembly is done before sending the message to the receiver and where the destination email address comprises an email address of the chunk assembly agent.

Togawa shows where the chunk assembly is done before sending the message to the receiver and where the destination email address comprises an email address of the chunk assembly agent ([113, 122, 206-109, 214, 217]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo with that Togawa in order to ensure the recipient can reassemble and utilize the message (Togawa, [35,41]).

7.   Regarding claim 4, Megiddo shows a method for enhancing security of e-mails transmitted from a sender to a receiver over a data transmission network wherein a

Message Transfer Agent (MTA) associated with said sender is in charge of transmitting

an original e-mail sent by said sender, comprising (Figs. 4, 7):

dividing said original e-mail into a plurality of chunks using an algorithm, wherein

dividing the original e-mail comprises of the original e-mail at the character level (col. 4

lines 35 – 41),

sending said chunks as e-mails over the data transmission network to a plurality

of relay MTAs defined in a predetermined list of relay MTAs (Figs. 1, 2, 4, 7, col. 2 line

55 – col. 3 line 2), wherein each of said plurality of chunks is sent to a different one of

the plurality of relay MTAs on the predetermined list such that each of said plurality of

chunks is transmitted over a different pathway of the data transmission network (col. 5

lines 15 – 43), and

re-assembling by a chunk assembly agent said chunks in order to re-build said

original e-mail by using said predetermined algorithm (col. 3 lines 2 - 6 and col. 4 lines

25 - 27),

wherein each of said chunks is transmitted through a different relay MTA of the

plurality relay MTAs as a chunk e-mail having a same destination e-mail address (col. 3

lines 1 – 2, Fig. 3 and col. 5 lines 25 – 42).

Megiddo does not show where the chunk assembly is done before sending the

message to the receiver and where the destination email address comprises an email

address of the chunk assembly agent.

Togawa shows where the chunk assembly is done before sending the message

to the receiver and where the destination email address comprises an email address of

the chunk assembly agent ([113, 122, 206-109, 214, 217]).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Megiddo with that Togawa in order to ensure the

recipient can reassemble and utilize the message (Togawa, [35,41]).

8.   Regarding claim 8, Megiddo shows a security system, comprising:

a Message Transfer Agent (MTA) associated with a sender for transmitting over

a network an original e-mail sent by the sender (Abstract, Fig. 3), the MTA including a

message splitting system for dividing the original e-mail into a plurality of chunks

according to a predetermined algorithm (Figs. 4, 7, col. 4 lines 41 – 63) and for

forwarding the plurality of chunks to a plurality of relay MTAs defined in a predetermined

list of relay MTAs (Figs. 2, 3, 5 and col. 2 line 66 – col. 3 line 2), wherein each of said

plurality of chunks is forwarded to a different one of the plurality of relay MTAs on the

predetermined list such that each of said plurality of chunks is transmitted over a

different pathway of the data transmission network (col. 5 lines 15 - 43), and wherein

the splitting system divides the plurality of chunks of the original e-mail at the character

level (col. 4 lines 35 – 41); and

a chunk assembly agent for receiving from the plurality of relay MTAs the

plurality of chunks and for re-assembling the plurality of chunks using the predetermined

algorithm in order to re-build the e-mail (col. 3 lines 2 – 6, col. 4 lines 25 - 27),

wherein each of said plurality of chunks is transmitted through a different relay

MTA of the plurality of relay MTAs a chunk e-mail having a same destination e-mail

address (col. 5 lines 24 – 42),

Megiddo does not show where the chunk assembly is done before sending the

message to the receiver and where the destination email address comprises an email

address of the chunk assembly agent.

Togawa shows where the chunk assembly is done before sending the message

to the receiver and where the destination email address comprises an email address of

the chunk assembly agent ([113, 122, 206-109, 214, 217]).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Megiddo with that Togawa in order to ensure the

recipient can reassemble and utilize the message (Togawa, [35,41]).

9.   Regarding claim 11, Megiddo shows a security system, comprising:

        a chunk assembly agent for:

        receiving from a plurality of relay Message Transfer Agents (MTAs) over a

network a plurality of chunks of an original e-mail that has been divided into the plurality

of chunks according to a predetermined algorithm (Fig. 8, Abstract), wherein each of the

plurality of chunks is received from a different one of the plurality of relay MTAs such

that each of said plurality of chunks is received over a different pathway of the data

transmission network (col. 5 lines 15 - 43), and wherein the plurality of chunks of the

original e-mail are divided at the character level (col. 4 lines 35 – 41),

        wherein each of said plurality of chunks has a same destination e-mail address

(col. 3 lines 1 – 2, col. 5 lines 25 – 42, Fig. 3),

        re-assembling the plurality of chunks using the predetermined algorithm in order

to re-build the e-mail (col. 3 lines 2- 6, col. 4 lines 25 - 27).

Megiddo does not show where the chunk assembly is done before sending the message to the receiver and where the destination email address comprises an email address of the chunk assembly agent.

Togawa shows where the chunk assembly is done before sending the message to the receiver and where the destination email address comprises an email address of the chunk assembly agent ([113, 122, 206-109, 214, 217]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo with that Togawa in order to ensure the recipient can reassemble and utilize the message (Togawa, [35,41]).

10.   Claims 3, 6, 7 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Megiddo in view of Togawa as applied to claims 1, 4, and 8 above, and further in view of Grobman (US 2004/0190722 A1) and Muschenborn (US 2002/0191796 A1).

11.   Regarding claim 3, Megiddo in view of Togawa show claim 1, including performing encryption prior to network transmission (Megiddo, Abstract).

Megiddo in view of Togawa do not show using a public key of the chunk assembly agent.

Grobman shows using a public key of the chunk assembly agent ([19, 20, 32] and Figs. 1A, 1B).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa with that of Grobman in order to provide for the strong security desired by Megiddo.

Megiddo in view of Togawa and Grobman do not show wherein each of the plurality of chunks is encrypted.

Muschenborn shows wherein each of the plurality of chunks is encrypted (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa and Grobman with that of Muschenborn in order to further enhance security through additional encryption.

12.   Regarding claim 6, Megiddo in view of Togawa show claim 4, including encryption before transmission (Megiddo, Abstract) and where said encrypted email being decrypted when received by the chunk assembler (Megiddo, Abstract, Fig. 5).

Megiddo in view of Togawa do not show using a public key of the chunk assembly agent and decrypting using a private key.

Grobman shows using a public key of the chunk assembly agent ([19, 20, 32] and Figs. 1A, 1B) and decrypting using a private key ([4,12,17]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa with that of Grobman in order to provide for the strong security desired by Megiddo.

Megiddo in view of Togawa and Grobman do not show wherein each of the plurality of chunks is encrypted.

Muschenborn shows wherein each of the plurality of chunks is encrypted (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Megiddo in view of Togawa and Grobman with that of Muschenborn in order to further enhance security through additional encryption.

13.   Regarding claim 7, Megiddo in view of Togawa, Grobman and Muschenborn further show wherein text of said original e-mail is encrypted by using the public key of said receiver (Grobman, [19, 20, 32]) before being divided into a plurality of chunks (Megiddo, col. 2 lines 66 – 67 and Abstract).

14.   Regarding claim 10, Megiddo in view of Togawa show claim 8.

Megiddo in view of Togawa do not show using a public key of the chunk assembly agent.

Grobman shows using a public key of the chunk assembly agent ([19, 20, 32] and Figs. 1A, 1B).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa with that of Grobman in order to provide for the strong security desired by Megiddo.

Megiddo in view of Togawa and Grobman do not show wherein each of the plurality of chunks is encrypted.

Muschenborn shows wherein each of the plurality of chunks is encrypted (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa and Grobman with that of Muschenborn in order to further enhance security through additional encryption.

15.

16.   Claims 12 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Megiddo in view of Togawa as applied to claims 1, 4, 8 and 11 above, and further in

view of Devanagondi (US 7,317,730).

17.   Regarding claim 12, Megiddo in view of Togawa show claim 1.

Megiddo in view of Togawa do not show wherein the predetermined algorithm is

"chunk # = 1 + module x".

Devanagondi shows using the predetermined algorithm "chunk # = 1 + module x"

(specifically showing a predetermined algorithm for dividing data to determine where it

is sent, where "chunk #" is represented by the queue number of Devanagondi; see

Abstract, Fig. 4, col. 5 line 60 – col. 6 line 40, col. 7 lines 26 - 48)

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Megiddo in view of Togawa with that of

Devanagondi in order to decrease the reassembly complexity (Devanagondi, col. 7 lines

26 – 31).

18.   Regarding claim 13, Megiddo in view of Togawa show claim 4.

Megiddo in view of Togawa do not show wherein the predetermined algorithm is

"chunk # = 1 + module x".

Devanagondi shows using the predetermined algorithm "chunk # = 1 + module x"

(specifically showing a predetermined algorithm for dividing data to determine where it

is sent, where "chunk #" is represented by the queue number of Devanagondi; see

Abstract, Fig. 4, col. 5 line 60 – col. 6 line 40, col. 7 lines 26 - 48)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa with that of Devanagondi in order to decrease the reassembly complexity (Devanagondi, col. 7 lines 26 – 31).

19.   Regarding claim 14, Megiddo in view of Togawa show claim 8.

Megiddo in view of Togawa do not show wherein the predetermined algorithm is "chunk # = 1 + module x".

Devanagondi shows using the predetermined algorithm "chunk # = 1 + module x" (specifically showing a predetermined algorithm for dividing data to determine where it is sent, where "chunk #" is represented by the queue number of Devanagondi; see Abstract, Fig. 4, col. 5 line 60 – col. 6 line 40, col. 7 lines 26 - 48)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Megiddo in view of Togawa with that of Devanagondi in order to decrease the reassembly complexity (Devanagondi, col. 7 lines 26 – 31).

20.   Regarding claim 15, Megiddo in view of Togawa show claim 11.

Megiddo in view of Togawa do not show wherein the predetermined algorithm is "chunk # = 1 + module x".

Devanagondi shows using the predetermined algorithm "chunk # = 1 + module x" (specifically showing a predetermined algorithm for dividing data to determine where it is sent, where "chunk #" is represented by the queue number of Devanagondi; see Abstract, Fig. 4, col. 5 line 60 – col. 6 line 40, col. 7 lines 26 - 48)

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Megiddo in view of Togawa with that of

Devanagondi in order to decrease the reassembly complexity (Devanagondi, col. 7 lines

26 – 31).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to John M. MacIlwinen whose telephone number is (571)

272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off

alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joon Hwang can be reached on (571) 272 - 4036. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Joon H. Hwang/
Supervisory Patent Examiner, Art Unit 2447